abcam

ab19489

Anti-Ctip1/BCL-11A antibody [18B12DE6]

KO Validated

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.5 Preservative: 0.02% Sodium azide Constituents: HEPES
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Protein within Human BCL11A. The exact immunogen used to generate this antibody is proprietary information. Database link Q9H165
Clone number	18B12DE6
Purity	IgG fraction
Epitope	Epitope is in carboxyl terminus of CTIP1/Bcl11a (aa's 434-776).
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	2 µg for 10^6 Cells
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse
Dilution info	2 µg for 10^6 Cells
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Expected

Species	Mouse
Dilution info	1/1000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	4 µg/mL
Notes	-

Expected

Species	Mouse
Dilution info	4 µg/µL

Notes	-

Target data

See full target information BCL11A

Function	Transcription factor (PubMed:16704730, PubMed:29606353). Associated with the BAF SWI/SNF chromatin remodeling complex (PubMed:23644491, PubMed:39607926). Binds to the 5'-TGACCA-3' sequence motif in regulatory regions of target genes, including a distal promoter of the HBG1 hemoglobin subunit gamma-1 gene (PubMed:29606353, PubMed:39423807). Involved in regulation of the developmental switch from gamma- to beta-globin, probably via direct repression of HBG1; hence indirectly repressing fetal hemoglobin (HbF) level (PubMed:26375765, PubMed:29606353, PubMed:39423807, PubMed:39607926). Involved in brain development (PubMed:27453576). May play a role in hematopoiesis (By similarity). Essential factor in lymphopoiesis required for B-cell formation in fetal liver (By similarity). May function as a modulator of the transcriptional repression activity of NR2F2 (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

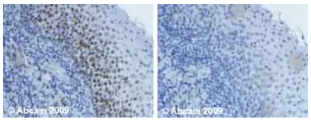
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

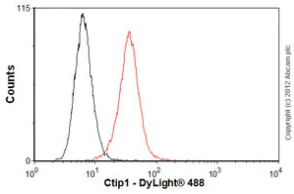
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ctip1/BCL-11A antibody [18B12DE6] (ab19489)

Ctip1/BCL-11A Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Ctip1/BCL-11A antibody

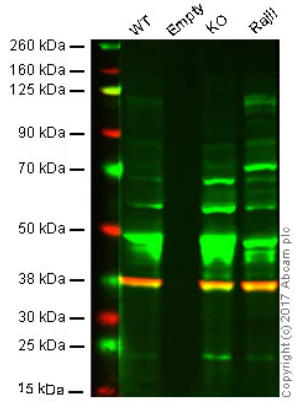
Human normal tonsil. Staining is localised to cytoplasm and nuclei. Left panel: with primary antibody at 4 ug/ml. Right panel: isotype control. Sections were stained using an automated system DAKO Autostainer Plus , at room temperature: sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffers citrate EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for mouse for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.



Flow Cytometry - Anti-Ctip1/BCL-11A antibody [18B12DE6] (ab19489)

Ctip1/BCL-11A Flow Cytometry staining using mouse Anti-Ctip1/BCL-11A antibody

Overlay histogram showing Ramos cells stained with ab19489 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab19489, 2µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Ramos cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-Ctip1/BCL-11A antibody [18B12DE6] (ab19489)

Ctip1/BCL-11A Western blot staining using mouse Anti-Ctip1/BCL-11A antibody

Lane 1: Wild type HAP1 whole cell lysate (20 µg)
Lane 2: Empty (0 µg)
Lane 3: BCL11A (Ctip1) knockout HAP1 whole cell lysate (20 µg)
Lane 4: Raji whole cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab19489 observed at 91 kDa. Red - loading control, ab181602, observed at 37 kDa.

ab19489 was shown to recognize BCL11A (Ctip1) in wild type cells as signal was lost at the expected MW in BCL11A (Ctip1) knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Empty knockout samples were subjected to SDS-PAGE. ab19489 and ab181602 (Rabbit anti GAPDH loading control) were incubated overnight at 4°C at 1000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed ab216772 and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed ab216777 secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Ctip1/BCL-11A antibody [18B12DE6] (ab19489)

Predicted band size: 91 kDa

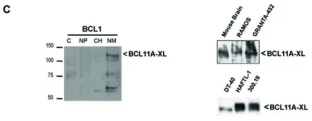


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Western blot - Anti-Ctip1/BCL-11A antibody [18B12DE6] (ab19489)

Ctip1/BCL-11A Western blot staining using mouse Anti-Ctip1/BCL-11A antibody

Western Blotting using Anti-Ctip1/BCL-11A antibody [18B12DE6], ab19489. Publication image from Banham, A. H. et al., 2006, Mol Cancer, 16704730. Legend direct from paper.

BCL11A-XL protein accumulates in the nuclear matrix of pre-germinal center lymphomas and B cell lines. (A) BCL11A-XL, whether endogenous (left panel) or ectopically expressed as an N-terminal FLAG-tagged fusion in HEK293 cells (right panel) partitions predominantly into the nuclear matrix fraction. Cells were fractionated using the method of Reyes et al [15], and equivalent volumes of each fraction were loaded per lane, allowing us to assess the relative distribution by western blotting with BCL11A/123. Cellular compartments were fractionated as Cytoplasm (C), Nucleoplasm (NP), Chromatin (CH), and Nuclear Matrix (NM). BCL11A-L partitions predominantly into the chromatin-associated fraction. BCL11A-S is predominantly cytoplasmic (data not shown). Note that HEK293 cells express endogenous XL protein in the NM fraction. (B) Endogenous BCL6, like BCL11A-XL, accumulates within the nuclear matrix. (C) Conservation of the XL isoform is documented by Western blotting a murine B-cell line (BCL1), mouse whole brain tissue, and the chicken DT40 B-cell line.

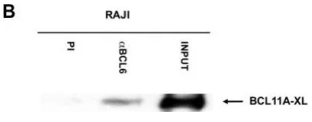


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Interaction of BCL11A-XL with BCL6, with itself, and with other BCL11A isoforms. (A) XL and L, but not S, associate with BCL6. Top, in vitro translated 35S-labeled BCL11A isoforms were incubated with cell lysates of HEK293 cells transiently transfected with FLAG-BCL6. Complexes were immunoprecipitated with anti-FLAG, separated on SDS-PAGE, and then visualized by fluorography.

Bottom HEK293 cells were transiently cotransfected with FLAG-BCL6 and HA-BCL11A isoform constructs. 48 hrs post-transfection, cell lysates were prepared, immunoprecipitates were prepared with anti-FLAG and products resolved as above were detected by anti-HA Western blotting. (B) Identification of endogenous BCL11A-XL and BCL6 heteromeric complexes in B-cell lines. Whole cell lysates from the Burkitt's lymphoma cell line, Raji, were immunoprecipitated with anti-BCL6 polyclonal antisera, resolved on SDS-PAGE and blotted for BCL11A-XL. (C) All BCL11A isoforms interact with each other in vitro. Immunoprecipitations were performed using in vitro translated, unlabeled Gal4-DNA-binding domain (Gal4DBD) alone or Gal4DBD-BCL11A isoform fusion proteins, and in vitro translated 35S-labeled HA-BCL11A isoforms, in the presence or the absence of an anti-Gal4-DNA-binding domain antibody (anti-Gal4DBD). The immunoprecipitated products were separated on SDS-PAGE and visualized by fluorography.

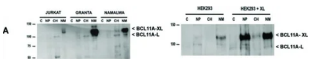


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